

ADDITIONAL NOTES ON THE GENUS *GEUNSLA*. I

Harold N. Moldenke

GEUNSLA CUMINGIANA (Schau.) Rolfe

Additional bibliography: Mold., *Phytologia* 50: 56 & 62--64, 1981.

Continuing with Dr. David Fairchild's notes regarding his collections of this species: "F. G. Ex 414. Undetermined tree or shrub ("*Callicarpa*" E. D. Merrill). In a bunch of flowers that a native woman of the Kampong of Arangkaa, Karakelong Island, brought me, I saw this pretty flower with brilliant tiny fruits. The flowers are individually very small, 1/8 inch long, borne in cymes, flat topped and 4 to 6 inches across. The five parted flowers are purplish and the long filaments of the stamens are a deeper purple. These stamens are longer than the corolla tubes and extruded. The effect is very delicate and pretty and I think something new. These flowers are followed by small, coral red berries, in flat cymes and showy. Fruits not over 3/16 of an inch across, globular, with 2 or 3 oblong, yellow seeds and a small amount of pulp. Leaves 8 by 2 1/2 inches, ovate pointed, petiole 3/4 inch, leaves and leaf stem covered with dense, stellate, brown pubescence, like that of the common mullein leaf. Karakelong Island, Talaud Islands D.E.I. 6/12/40. Photo. Perhaps one of the flowers D.F. No. 24029, 11 or 12 is this species. Regarding this last remark I have examined carefully these prints and find they are of *Ixoras*. I have just done this. D. F."

To these remarks I may add that I have personally examined a number of his collections of *Verbenaceae* and find that the following are their identities: 421 is *Premna obtusifolia* R. Br., 185 is *Premna subglabra* Merr., 196 is *Premna nitida* K. Schum., 317 is *Clerodendrum rumphianum* DeVriese & Teijsm., 3425 is *Geunslia farinosa* Blume, and 3459 is *Clerodendrum minahassae* Teijsm. & Binn.

Elmer describes his collection of *Geunslia cumingiana* as follows: "erect shrub-like tree in gravelly soil of wooded creek banks; alt. 750 ft.; wood moderately soft or hard, heavy, odorless and tasteless, dingy-white; bark thick, brownish on the checked or shredded surface, smooth and yellowish-green on the branches; stem 3 inches thick, 25 feet tall or less, branched from above the middle, crooked and irregular; twigs suberect, dirty yellowish hairy; leaves submembranous, chiefly horizontal, usually folded on the upper slightly deeper-green surface, margins coarsely wavy; inflorescence stalks yellowish green; fruit subglobose, 1/8 in. diam., light-purple; inflorescence also erect, violet to lilac, odorless, even the buds colored."

Bakhuizen (1929), speaking of *Brass* 659, from Papua, says: "A slender tree, 20 feet high, with very soft wood, sweet-scented, pink flowers and red fruit. The specimen [is] marked by the soft pubescent upper side and tomentose under side of the leaves

and the large cymes with subglabrous, 4--5-merous flowers [and] shows the same form as those collected by Gjellerup at Hollandia Bivak, in Dutch New Guinea (no. 67b, April 1910 and no. 416b, Dec. 31, 1910) and is not different from that of Lane-Poole no. 167, cited as *Geunsia farinosa* by Lane-Poole.....(1925) and by White & Francis.....(1927)." He gives the distribution as "Philippines, Celebes, Moluccas, New Guinea". It should be noted that Bakhuizen's *Callicarpa pentandra* var. *cumingiana* f. *surigaensis* is a synonym of *C. surigaensis* Merr. In his 1921 work, curiously, he reduces *Callicarpa cumingiana* Schau. to what he calls *C. pentandra* var. *cumingiana* f. *typica* Bakh., but *Geunsia cumingiana* (Schau.) Rolfe to *Callicarpa pentandra* var. *cumingiana* f. *pentamera* (H. J. Lam) Bakh. although both of these names are based on the same nomenclatural type.

Hooker (1885) regards *Callicarpa hexandra* Teijsm. & Binn. as a synonym of *Geunsia cumingiana* "or very nearly so, and perhaps neither is distinct from *Geunsia farinosa*; but Cuming's n. 1773, reduced to *G. farinosa* by Schauer, is probably....a good species."

Merrill (1923) regards *Callicarpa affinis* Elm. as a synonym of *G. cumingiana*, but I place it in the synonymy of *G. farinosa* Blume. He cites from Polillo, Luzon, Samar, Leyte, Panay, Negros, Siargao, Bucas Grande, and Mindanao, in the Philippine Islands, the following collections: *Cuming 1707*, *Cardona 23866*, *Danao 12444*, *Elmer 7368*, *10856*, *11102*, & *13351*, *Hinolan 24043*, *Merrill 1691*, *Ramos 14710* & *24383*, *Ramos & Edaño 21179* & *30998*, *Ramos & Pascasio 34866* & *35071*, *Tarrosa & Almagro 14928*, and *Wenzel 1235*, asserting that in the Philippines the species inhabits secondary forests at low and medium altitudes, occurring also in Celebes and the Molucca Islands. In his 1912 work he cites *Cuming 1707* from Samar, *Danao 12444* from Negros, *Elmer 7368* from Leyte, and *Ahern 378* and *Mearns & Hutchinson 4712* from Mindanao.

Schauer (1847) and Vidal (1885) cite only the type collection, *Cuming 1707*; Bakhuizen (1921) cites only *Robinson 11502* from Basilan; Beer & Lam (1936) cite *Brass 5537* from Papua; Merrill (1903) cites *Ahern 689* from Mindanao and *803* from Luzon, referring to this species as "endemic" to the Philippines. White (1929) cites *Brass 659* from Papua.

Material of *Geunsia cumingiana* has been misidentified and distributed in some herbaria as *G. farinosa* Blume, *Callicarpa affinis* Elm., *C. macrophylla* Vahl, *C. pentandra* Roxb., *C. tomentosa* (L.) Murr., *C. tomentosa* var. *lanata* (L.) Bakh., and *Leucosyke capitellata* Wedd. On the other hand, the *Mearns & Hutchinson s.n.* [Herb. Philip. Forest Bur. 4713], distributed as typical *G. cumingiana*, actually is its var. *dentata* (Bakh.) Mold., *Brass 5495* is *G. farinosa* Blume, *Herb. Hort. Bot. Bogor. 18544*, *Kanehira 2518*, and *Koorders 19495b* are *G. hexandra* (Teijsm. & Binn.) Koord., *Ramos & Edaño s.n.* [Herb. Philip. Bur. Sci. 49732] is *G. paloensis* (Elm.) H. J. Lam, *M. Ramos s.n.* [Herb. Philip Bur. Sci. 43349] is *G. pentandra* (Roxb.) Merr., *C. B. Robinson s.n.* [Herb. Philip. Bur. Sci. 11502] is *Callicarpa basilanensis* Merr., *Ahern 318Q* is the type collection of *C. surigaensis* Merr., and *Clemens 16797* is *Premna cumingiana* Schau.

Citations: INDIA: Gujarat: *Koelz 13302* (Mi). PHILIPPINE ISLANDS: Bucas Grande: *Ramos & Pascasio s.n.* [Herb. Philip. Bur. Sci. 35071] (Ca--212945). Leyte: *Elmer 7368* (Bz--18209, N); *Fontanoza 59* [Herb. Philip. Forest. Bur. 31131] (N). Luzon: *Ahern's Collector s.n.* [Merr. Dec. Philip. Forest Fl. 112] (It, Mi, W--1584064). Mindanao: *Elmer 13351* (Bi, Bz--18200, Ca--272085, Le--914.185-139, N, Ut--33523, W--1172236); *Guerrero s.n.* [Herb. Philip. Forest. Bur. 30368] (Ca--321042, N); *Ponce 12* [Herb. Philip. Forest. Bur. 49510] (N, N); *M. Ramos s.n.* [Herb. Philip. Bur. Sci. 14710] (W--714756); *Ramos & Convocar s.n.* [Herb. Philip. Bur. Sci. 83554] (Ba, Ba, Bz--17487); *Ramos & Edaño s.n.* [Herb. Philip. Bur. Sci. 49510] (Bz--18208, Ca--323882, N, S); *Ramos & Pascasio s.n.* [Herb. Philip. Bur. Sci. 34866] (Bz--18201); *Wenzel 2701* (Au, B, Bz--18197, Mu), 2849 (Au, B, Bz--18198, Ca--316778, Mu, N), 3398 (Ca--354914. Negros: *Cardona s.n.* [Herb. Philip. Forest. Bur. 23866] (W--1290166); *Danao s.n.* [Herb. Philip. Forest. Bur. 12444] (W--628721); *Hinolan s.n.* [Herb. Philip. Forest. Bur. 24043] (N). Panay: *Edaño s.n.* [Herb. Philip. Bur. Sci. 45975] (B, Ca, W--1551381); *Ramos & Edaño s.n.* [Herb. Philip. Bur. Sci. 31179] (N). Samar: *Cuming 1707* (Dc--type, Le--908.266-913--isotype, Mu--1401--isotype); *M. Ramos 1691* (Bz--18191, Le--926.26-11, N), *s.n.* [Herb. Philip. Bur. Sci. 24383] (W--1239370). Island undetermined: *Herb. Com. Fl. Forest. 844* [Daraga] (Le--908.266-393). GREATER SUNDA ISLANDS: Celebes: *Kjellberg 1763* (S); *Rachmat 555* (Bz--18234), 572 (Bz--18235). Java: *Teijsmann s.n.* [1868] (Mi, Mi). Karakalang: *D. Fairchild 414* (A). Sabah: *Gibot SAN.30558* (Sn--40658). Sumatra: *Asgar 2* [Boschproefst. b.b.25245] (Bz--18182). MOLUCCA ISLANDS: Mangole: *Bloembergen 445* [Boschproefst. b.b. 29855] (Bz--18177); *Hulstijn 42* (Bz--18184, Bz--18185). Taliboe: *Hulstijn 315* (Bz--18186, Bz--18187, Bz--18188). NEW GUINEA: Papua: *Brass 659* (Bz--18203), 3925 (Bz--18189, N), 5537 (N), 21799 (W--2495436), 24261 (Ng--17088, W--2496031); *Carr 12824* (N), 14870 (N), 15376 (Le--936.295-121, N); *Hoogland 3482* (Ng--16836, Ng, W--2213579), 3905 (W--2213724); *New Guinea Dept. Forest. 2906* (Bz--72702); *Lane-Poole 167* (Bz--18206, Z); *Schodde 2362* (Ba); *C. T. White 574* (Bz--18205); *Wiakabu & Simaga LAE.70248* (Mu, W--2906418). Territory of New Guinea: *Armit s.n.* [1895] (Mb); *Chalmers s.n.* [1885] (Mb); *Clemens 11195* (Mi), 41320 (Mi); *Dadswell & Smith 1677* (Ng--6492, Ng); *Docters van Leeuwen 11262* (Ng--16932); *Floyd 5453* (Ng--16975); *H. O. Forbes 92* (Le--908.142-389); *Gjellerup 67* (Bz--18207, Le--926.340-54, Ut--86459), 416 (Bz--18204, Le--926.340-86); *Herre 219* (Bz--72636, N); *Hollrung 8721* (Bz--18195); *Hoogland 4862* (Ng--8322, W--2214113); *Sayers NGF.21559* (Mi, N); *F. R. R. Schlechter 16454* (Le--927.320-159, S); *Streimann & Kairo NGF.21107* (Mu); *Van der Sijde BW.4049* (Ng--20211); *Womersley 2906* (Ng--6493). NEW GUINEAN ISLANDS: Fergusson: *Brass 25946* (W--2408431). Goodenough: *Brass 25103* (Ng--17159, W--2495547). BISMARK ARCHIPELAGO: Manus: *Foreman & Katik LAE.59187* (Mu). New Britain: *Barker & Vines LAE. 66685* (Mu); *Floyd 6477* (Bi, Ng--16912, W--2211025); *Frodin NGF. 26229* (N), 26641 (N); *Henty & Frodin NGF.27209* (N). CULTIVATED: Florida: *Fennell 1570* [Fairchild Exped. 157]; U. S. Plant Introd. 136643] (Ba), 1580 (Ba); *R. E. Matthews s.n.* [Fairchild Exped.157]

(N, N).

GEUNZIA CUMINGIANA var. *DENTATA* (Bakh.) Mold., *Phytologia* 5: 8. 1954.

Synonymy: *Callicarpa pentandra* var. *cumingiana* f. *dentata* Bakh. in Lam & Bakh., *Bull. Jard. Bot. Buitenz.*, ser. 3, 3: 17. 1921.

Bibliography: Bakh. in Lam & Bakh., *Bull. Jard. Bot. Buitenz.*, ser. 3, 3: 17. 1921; Fedde & Schust., *Justs Bot. Jahresber.* 53 (1): 1071. 1932; Mold., *Phytologia* 5: 8. 1954; Mold., *Résumé* 184, 188, 190, 246, & 455. 1959; Mold., *Fifth Summ.* 1: 317, 324, & 415 (1971) and 2: 878. 1971; Mold., *Phytol. Mem.* 2: 307, 315, & 548. 1980; Mold., *Phytologia* 50: 56. 1981.

This pentamerous variety differs from the typical form of the species in having serrate leaf-blades. Bakhuisen's (1921) more complete description is "Ramuli obtuse quadrangulares, crassiusculi; foliorum oppositorum paria singula cum foliis 1--2 alternantia, lato-ovata vel oblonga, aut lanceolata vel obovata, basi obtusa vel rotundata, raro subcordata vel subacuta, apice abrupte caudato-attenuata, acuta, grosse vel minutissime depando-dentata, adulta supra dense subrugosa, ferrugineo-hirsuta, subtus rugosa, sparse pilis stellatis subtomentosa, siccando rava vel subferruginea, 10--20 c.M. longa, 3--12 c.M. lata, nervis lateralibus utrinque 10--15; petiolus 1.5--3.5 c.M. longus; cymi mediocres, 5--7 c.M. longi; pedunculus 3--5 c.M. longus; calyx 5-dentatus, extus dense farinosus, 0.15--0.20 c.M. altus; corolla 5-lacinata, extus subglabra, vel a dorso laciniis sparse pilosa; semina 5."

The variety is based on *Backer 4611* from Noesa Kembangan, Java, and *Teijsmann 4284* [erroneously cited by Bakhuisen as "42844"] from Lampong, Tarabangi, Sumatra, deposited in the Buitenzorg herbarium. Bakhuisen cites only these two collections.

Collectors have found this plant in anthesis in May. Material has been distributed in some herbaria as typical *G. cumingiana* (Schau.) Rolfe, *G. farinosa* Blume, *Callicarpa acuminatissima* Teijsm. & Binn., *C. longifolia* var. *subglabra* Schau., *C. pentandra* Roxb., and *C. pentandra* f. *pubescens* Bakh.

Citations: PHILIPPINE ISLANDS: Mindanao: *Ahern 378* (W--445706); *Mearns & Hutchinson s.n.* [Herb. Philip. Forest. Bur. 4713] (Br, Bz--18199, W, W--708928); *Quadras 341* (W--1584678). GREATER SUNDA ISLANDS: Java: *Backer 4611* (Bz--18192--cotype, Bz--18193--cotype, Z--cotype). Sumatra: *Teijsmann 4284 H.B.* (Bz--18194--cotype).

GEUNZIA FARINOSA Blume, *Cat. Gewass. Buitenz.*, imp. 1, 48. 1823 [not *G. farinosa* F. Villar, 1923].

Synonymy: *Callicarpa affinis* Elm., *Leafl. Philip. Bot.* 3: 865. 1910. *Geunsia farinosa* Blume apud E. D. Merr., *Philip. Journ. Sci. Bot.* 7: 343, sphalm. 1912. *Geunsia farinosa* var. *typica* H. J. Lam, *Verbenac. Malay. Arch.* 42--43. 1919. *Geunsia farinosa* var. *albida* H. J. Lam, *Verbenac. Malay. Arch.* 43. 1919. *Callicarpa pentandra* var. *typica* f. *farinosa* (Blume) Bakh. in Lam &

Bakh., Bull. Jard. Bot. Buitenz., ser. 3, 3: 13. 1921. *Callicarpa pentandra* f. *farinosa* (Blume) Bakh. in Bakh. & Lam, Nov. Guin. 14, Bot. 1: 167. 1924. *Callicarpa forinosa* Corner, Wayside Trees, ed. 2, 697, sphalm. 1952 [not *C. farinosa* Roxb., 1831, nor Sieb., 1865, nor Sieb. & Zucc., 1971]. *Geunsia subalternifolia* H. Hallier ex Mold., Résumé 295, in syn. 1959. *Callicarpa pentandra farinosa* (Blume) Bakh. ex Mold., Resume Suppl. 15: 17, in syn. 1967. *Callicarpa pentandra* var. *agricola* f. *farinosa* (Blume) Bakh. ex Mold., Fifth Summ. 1: 415, in syn. 1971.

Bibliography: Blume, Cat. Gewass. Buitenz., imp. 1, 11, 12, & 48. 1823; Nees, Flora 8: 109--110. 1825; Blume, Bijdr. Fl. Ned. Ind. 14: 819. 1826; Meisn., Pl. Vasc. Gen. Comm. 2: 200. 1840; D. Dietr., Syn. Pl. 3: 619. 1843; Massk., Cat. Pl. Hort. Bot. Bogor. Cult. Alt. 136. 1844; Walp., Repert. Bot. Syst. 4: 116. 1845; Schau. in A. DC., Prodr. 11: 646. 1847; Miq., Fl. Ind. Bat. 2: 385. 1856; Buek, Gen. Spec. Syn. Candol. 3: 198. 1858; Baill., Adansonia, ser. 1, 3: 8. 1862; Bocq., Adansonia, ser. 1, 2: [Rev. Verbenac.] 83 & 115 (1862) and 3: 186 & 263, pl. 8, fig. 1--7. 1862; Benth. in Benth. & Hook., Gen. Pl. 2 (2): 1150. 1876; Fern.-Villar in Blanco, Fl. Filip., ed. 3, 4: Nov. App. 158. 1880; C. B. Clarke in Hook. f., Fl. Brit. India 4: 566. 1885; Vidal y Soler, Phan. Cuming. Philip. 68 & 134. 1885; K. Schum. & Hollr., Fl. Kais. Wilhelmsl. 119. 1889; Warb., Engl. Bot. Jahrs. 13: 426. 1891; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 1, 1: 386. 1893; Stapf, Trans. Linn. Soc. Lond. Bot., ser. 2, 4: 88, 119, & 215. 1894; Briq. in Engl. & Prantl, Nat. Pflanzenfam., ed. 1, 4 (3a): 136--142, 164, & 165, fig. 54C & 62A. 1895; Stapf, Trans. Linn. Soc. Lond. Bot., ser. 2, 4: 527. 1896; Koord. & Valet., Meded. Lands Plant. Bat. 42 [Bijdr. Booms. Java 7]: 173--174. 1900; K. Schum. & Lauterb., Fl. Deutsch. Schutzgeb. Südsee 521. 1900; E. D. Merr., Bull. Philip. Forest. Bur. 1: 50. 1903; Gamble in King & Gamble, Journ. Asiat. Soc. Beng. 74 (2 extra): 800--802. 1908; Elm., Leaflet. Philip. Bot. 3: 864--866. 1910; M. C. Muller, Jungh. Gedenkb. 188. 1910; Gilg in Engl., Syllab. Pflanzenfam., ed. 7, 314, fig. 413 B. 1912; Koord., Excursionsfl. 3: 134 & 413. 1912; E. D. Merr., Philip. Journ. Sci. Bot. 7: 342 & 343. 1912; Prain, Ind. Kew. Suppl. 4, imp. 1, 43. 1913; Koord. & Valet., Atlas Baumart. Java 2: 6, pl. 279. 1914; Heyne, Nutt. Pl. Ned. Ind., ed. 1, 4: 106--107. 1917; H. Hallier, Meded. Rijks Herb. Leid. 37: 23, 24, & 31. 1918; Gilg in Engl., Syllab. Pflanzenfam., ed. 8, 318, fig. 413 B. 1919; H. J. Lam, Verbenac. Malay. Arch. 30--32, 34, 35, 42--43, 80, & 365. 1919; Bakh. in Lam & Bakh., Bull. Jard. Bot. Buitenz., ser. 3, 3: 13, 107, 111, vi, & xi. 1921; E. D. Merr., Bibl. Enum. Born. Pl. 511. 1921; Prain, Ind. Kew. Suppl. 5, imp. 1, 43. 1921; E. D. Merr., Enum. Philip. Flow. Pl. 3: 383. 1923; Ridl., Fl. Malay Penins. 2: 614. 1923; Bakh. in Bakh. & Lam, Nov. Guin. 14, Bot. 1: 167. 1924; Gilg in Engl., Syllab. Pflanzenfam., ed. 9 & 10, 339, fig. 418 B. 1924; H. J. Lam in Lauterb., Engl. Bot. Jahrb. 59: 88. 1924; Lane-Poole, Rep. Forest Res. Terr. Papua 136. 1925; S. Moore, Journ. Bot. Lond. 63: Suppl. 80. 1925; Janssonius, Mikrogr. Holz. 754, 757--758, 763, & 766--774, fig.

291. 1926; White & Francis, Proc. Roy. Soc. Queensl. 38: 257. 1927; Bakh., Journ. Arnold Arb. 10: [69]. 1929; Burkill & Haniff, Gard. Bull. Straits Settl. 6: 233. 1930; Stapf, Ind. Lond. 3: 279. 1930; Fedde & Schust., Justs Bot. Jahresber. 53 (1): 1070. 1932; Junell, Symb. Bot. Upsal. 4: 30, pl. 6, fig. 1. 1934; Diels in Engl., Syllab. Pflanzenfam., ed. 11, 339, fig. 432 B. 1936; Fletcher, Kew Bull. Misc. Inf. 1938: 415. 1938; Elm., Leaflet. Philip. Bot. 10: 3860. 1939; Fedde & Schust., Justs Bot. Jahresber. 60 (2): 573. 1941; Mold., Alph. List Inv. Names 8 & 25. 1942; Mold., Known Geogr. Distrib. Verbenac., ed. 1, 60, 61, 63--66, 68, & 93. 1942; Blume, Cat. Gewass. Buitenz., imp. 2, 11, 12, & 48. 1946; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 2, 1: 1026. 1946; Mold., Alph. List Inv. Names Suppl. 1: 3 & 9. 1947; Mold., Known Geogr. Distrib. Verbenac., ed. 2, 138, 139, 141, 143--150, & 185. 1949; Corner, Wayside Trees, ed. 2, 697 & 698. 1952; Janssonius, Key Javan Woods 55 & 212, fig. 291. 1952; Anon., U. S. Dept. Agr. Bot. Subj. Index 15: 14354. 1958; Prain, Ind. Kew. Suppl. 5, imp. 2, 43. 1958; Anon., Kew Bull. Gen. Index 1929-1956, 132. 1959; Mold., Résumé 180, 184, 187, 188, 190, 192, 193, 195, 197, 199, 201, 204, 241, 246, 295, & 455. 1959; Emberger in Chadeaud & Emberger, Trait. Bot. 2: 827, fig. 1173e. 1960; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 3, 1: 1026. 1960; Mold., Résumé Suppl. 3: 18, 20, & 23 (1962) and 4: 9. 1962; Mold., Dansk Bot. Arkiv 23: 90. 1963; Melchior in Engl., Syllab. Pflanzenfam., ed. 12, 2: 436, fig. 184 B & D. 1964; Mold., Résumé Suppl. 12: 8. 1965; Burkill, Dict. Econ. Prod. Malay Penins. 1: 1085--1086. 1966; G. Taylor, Ind. Kew. Suppl. 13: 60. 1966; Mold., Résumé Suppl. 15: 17. 1967; Meijer, Bot. Bull. Herb. Forest Dept. Sandakan 10: 27. 1968; Mold., Fifth Summ. 1: 289, 296, 305, 317, 324, 330, 332, 336, 339, 340, 404, 415, & 416 (1971) and 2: 520 & 878. 1971; Mold., Phytologia 22: 25 (1971), 25: 234 (1973), 26: 368 (1973), 34: 272 (1976), and 44: 473. 1979; Mold., Phytol. Mem. 2: 279, 286, 296, 307, 315, 320, 322, 326, 329, 330, 353, 378, & 548. 1980; Mold., Phytologia 49: 474 (1981) and 50: 52, 57, 58, 64, & 67. 1981.

Illustrations: Baill., Adansonia, ser. 1, 3: 8. 1862; Bocq., Adansonia, ser. 1, 3: [Rev. Verbenac.] pl. 8, fig. 1--7. 1863; Briq. in Engl. & Prantl, Nat. Pflanzenfam., ed. 1, 4 (3a): 136 & 165, fig. 54C & 62A. 1895; Gilg in Engl., Syllab. Pflanzenfam., ed. 7, 314, fig. 413 B. 1912; Koord. & Valet., Atlas Baumart. Java pl. 279. 1914; Gilg in Engl., Syllab. Pflanzenfam., ed. 8, 318, fig. 413 B (1919) and ed. 9 & 10, 339, fig. 418 B. 1924; Janssonius, Mikrogr. Holz. 769, fig. 291. 1926; Junell, Symb. Bot. Upsal. 1 (4): pl. 6, fig. 1. 1934; Diels in Engl., Syllab. Pflanzenfam., ed. 11, 339, fig. 432 B. 1936; Janssonius, Key Javan Woods 212, fig. 291. 1952; Emberger in Chadeaud & Emberger, Trait. Bot. 2: 827, fig. 1173e. 1960; Mold., Dansk Bot. Arkiv 23: 90. 1963; Melchior in Engl., Syllab. Pflanzenfam., ed. 12, 436, fig. 184 B & D. 1964.

A shrub, 2--8 m. tall, or a small, attractive, slender tree, 5--26 m. tall, mostly pubescent with pale-brown stellate hairs throughout, wide-branching; clear bole straight, often 2 m. high, the trunk 15--75 cm. in girth, 20--45 ["80" according to Koorders; "90"

according to Heyne] cm. in diameter at breast height; outer bark white or gray to grayish-brown, light-brown, brownish, or brownish-red, smooth or scaly, fissured; inner bark soft, white ("but 3 minutes after cutting it and the cambium turn yellowish") or whitish to yellow, greenish, or brownish (or, according to Abas, "pale-orange changing to chocolate"), the cambium brown or purple; sapwood white or yellowish-white to pale-yellow, yellowish, or red (according to Abas "pale-yellow becoming purple"), the exudate red; branches and branchlets stellate-farinoso with a yellowish-brown tomentum; leaves both opposite and alternate, with 2 alternate and then 2 opposite, often pseudo-ternate, especially toward the ends of the branches; petioles 2--3.5 cm. long, stellate-farinoso with yellowish-brown tomentum; leaf-blades chartaceous to subcoriaceous or coriaceous, ovate-oblong to oblong or elliptic, 12.5--22 cm. long, 6--11 cm. wide, apically acute or sub-abruptly acuminate to cuspidate, marginally entire, basally abruptly acute or rounded, rather densely stellate-hairy or mealy-tomentose above when young, but glabrous, shiny, dark-green, and eglandulose above when mature or sometimes somewhat hairy on the larger venation, light-green and permanently densely and minutely mealy- or stellate-tomentose with yellowish-brown or silvery-white (var. *albida* H. J. Lam) hairs and densely glandulose beneath; secondaries 9--12 pairs, prominent beneath; cymes axillary, dichotomous, divaricate, rounded or flat-topped, densely many-flowered, 7--10 cm. long, 6--8 cm. wide, stellate-farinoso with yellowish-brown hairs throughout, borne in the axils of both the opposite and alternate leaves; peduncles 2.5--6 cm. long, mealy; flower-buds green or greenish to pale-mauve; flowers small, fragrant, with a cucurbitaceous odor; calyx cupuliform, about 1.5 mm. long, externally stellate-hairy or mealy, glandulose, the rim 5-toothed; corolla hypocrateriform, pink or red to violet, lilac, or purple, sometimes white, 5-merous, externally glandulose, otherwise glabrous, the tube 5--6 mm. long, the 5 lobes narrow, about 1.5 mm. wide, reflexed or recurved; stamens 5, about 8 mm. long, exserted; anthers yellow, long and narrow, about 3 mm. long, about 5 times as long as wide, the connective glandular-punctate on both sides, especially dorsally; style about 11 mm. long; stigma capitate, somewhat 5-lobulate; ovary glandulose, especially apically; fruit drupaceous, subglobose or globose, 5--12 mm. long and wide, at first green or light-green, later pinkish-green or yellowish-red, to bright-red, scarlet, or a "beautiful lacquer-red", black when fully ripe, fleshy, externally somewhat glandulose, 10- (or less by abortion) seeded.

Collectors have found this plant growing in brown or reddish-brown sandy or mostly silty soil in primary and secondary forests, peat forests, the secondary growth in older or younger disturbed forests, at forest margins, along roadsides, among scrub vegetation, on flat land or steep hillsides and mountainsides, in low land and on hilltops, in disturbed areas on open floodplains, and even on coral limestone, "abundant in secondary bush", from sea-level to 1300 m. altitude, in flower during every month of the year, and in fruit in March, April, June to August, and October to

January, *i.e.*, also virtually throughout the year. Sijde refers to it as a "common scattered shrub" in New Guinea. Curran comments that it "might be attractive to birds, very beautiful as a specimen tree (Photo Beck B & W.E.19 Col. 35 [3, 36 (11)])."

The corollas are said to have been "red-lilac" on *Lauterbach 3 & 1417*, "purplish-white" on *N. Born. For. Dept. A.2294*, "deep-pink" on *N. Born. For. Dept. A.1274*, "pink" on *McKee 1933, Native Coll. 2528*, and *N. Born. For. Dept. A.1238*, "pink to purplish" on *SAN. 71163*, "dark-red" on *SAN.36123*, "pinkish" on *SAN.33151*, "old-rose-pink" on *Gillis 11414*, "purple" on *Köie & Olsen 1237* and *Native Coll. 2789*, "pale-purple" on *Aban & Petrus SAN.90689*, "mauve" on *Purseglove 5408*, "violet" on *Larsen 8676*, "lilac" on *Balgoooy 2269*, "chocolate" on *SAN.32630*, "brown" on *Wood 2649*, "yellow-green" on *SAN.23770*, "greenish-white" on *N. Born. For. Dept. A.2588*, "green" on *Sales 3726 & SAN.30933*, and "white" on *Agullana 3875, Ebaló 1131, N. Born. For. Dept. A.3082, and SAN.32658*.

It should be noted that the *Koorders 9733b*, cited below, exhibits a few leaves like those of *G. pullei* H. J. Lam.

Callicarpa affinis is based on *Elmer 10856* and *11102* from Mindanao, Philippines. The leaves of the latter collection are remarkably ovate for *Geunsia farinosa*. *Geunsia subalternifolia* is based on *Beccari 786* from Borneo. The *Callicarpa farinosa* Roxb., referred to in the synonymy (above) is a synonym of *C. tomentosa* (L.) Murr., while the homonymous binomials accredited to Siebold and to Siebold & Zuccarini are *C. mollis* Sieb. & Zucc. *Geunsia farinosa* Fern.-Villar is a synonym of *G. cumingiana* (Schau.) Rolfe.

Janssonius (1952) describes the wood of *Geunsia farinosa* as: "The uni-seriate medullary rays are very rare. The number of the vessels to the mm² of the transverse section usually much larger. Wood fine-textured, flexible, tough; specific gravity 0,60 to 0,70." In his 1926 work he describes it in much greater detail.

Burkill (1966) describes *G. farinosa* as "A small tree found throughout Malaysia; in the [Malay] Peninsula it is not uncommon in most parts. Owing to its great similarity to species of *Callicarpa*, it is called 'tampang bēsi', but unlike the common species of *Callicarpa* it is rarely recorded as medicinal. Burkill & Haniff(.....1930.....) say that it is used for vertigo; K. Heyne (...1918.....) says that the ground bark is used in Sumatra for swellings, but the statement does not reappear in his edition of 1927. The wood is white, light, and of little use, but recorded by Alvens as employed for rafters."

Lam (1919) divides the species into two varieties: var. *typica* H. J. Lam with "tomentum foliorum subtus, ramulorum cymorumque luteo-brunneo-stellatum" and var. *albida* H. J. Lam, based on *Haviland & Hose 3653E* from Sarawak, with "tomentum foliorum subtus ramulorum cymorumque argento-albo-stellatum." He comments that "We discovered specimina, which are a transition-form to *G. hexandra* by their greater leaves and their somewhat hairy corolla. In connexion with our [previous] remarks.....it might be supposed, that *G. hexandra* is developing from *G. farinosa* There are indications that 4-merous specimina occur, but we did not see such. They

should form a var. *γ pentamera*."

Callicarpa acuminatissima Teijsm. & Binn. & *C. hexandra* Teijsm. & Binn. are often cited as synonyms of *Geunsia farinosa*, but incorrectly so. Because of this unjustified reduction, and others like it, most of the descriptions purporting to be of *G. farinosa* in earlier works (after Blume) are misleading since they are apt to include the characters of other taxa.

Koorders (1912) refers to *G. farinosa* as a tree to 26 m. tall, the trunk to 80 cm. in diameter, with a "pretty rose-coloured fruit". native to middle and western Java from sealevel to 1300 m. altitude, "scattered and not rare in open rainforests". Corner (1952) describes it as "A tree like *C[allicarpa] tomentosa* but:- Twigs, inflorescences and undersides of the leaves brown-scurfy. Leaf-blades 3.5--9 x 1.5--4", the leaves on the horizontal or inclined twigs alternately paired and unpaired, the paired leaves being in the horizontal plane, the unpaired leaf on the upperside of the twig being much smaller than the corresponding unpaired leaf on the lower side: stalk 0.--1.5" long. Inflorescence 1.5--3.5" wide. Berries 0.1--0.15" wide, ripening bright red. W. Malaysia to the Philippines and Celebes: common from Johore to Penang, especially in lowlying, swampy jungle. The arrangement of the leaves on the branches of this tree is most peculiar: the effect is to avoid shading of the leaf on the underside of the twig by that on the upperside." He calls the species the "Red-berried Malayan Lilac".

Fernandez-Villar reduces *Callicarpa pentandra* to this species, citing *Cuming 1773* from the Philippines, clearly a case of misidentification -- *Geunsia pentandra*, as Merrill has pointed out, is quite distinct from *G. farinosa*. Schauer (1847) accepts *Callicarpa pentandra* as a valid species, reducing *Geunsia farinosa* Blume to its synonymy, also citing *Cuming 1773* as well as unnumbered Blume and Kollmann collections from Java. Fletcher (1938) and Meeuse also reduce *G. farinosa* to synonymy under *G. pentandra*.

Hooker (1885) reduces both *Callicarpa pentandra* and *Callicarpa acuminatissima* Teijsm. & Binn. to *Geunsia farinosa*, commenting that "*C. hexandra* Teijsm. & Binn.....is *C. cumingiana* Schau.....or very nearly so, and perhaps neither is distinct from *Geunsia farinosa*; but *Cuming's n. 1773*, reduced to *G. farinosa* by Schauer, is probably, as stated in *Gen. Pl. 2*, p. 1150, a good species." Heyne (1917) and Warburg (1891) also include *Callicarpa pentandra* in their concept of *Geunsia farinosa*, the latter author citing an unnumbered Hollrung collection.

Junell (1934), working with unnumbered Ridley and Zollinger collections, reports that "Obwohl ich nur von einigen wenigen Fruchtknoten Querschnittreihen herstellte, erhielt ich Präparate von fünf-, vier- und dreizähligen Gynäceen. Bocquillon.....führt ein Diagramm des Blütenbaus bei dieser Art an, in dem man deutlich die Stellung der fünf Fruchtblätter und die Lokalisierung der Samenanlagen auf den Fruchtblättern sehen kann. Ein Querschnitt eines fünfzähligen Gynäceums wird in Taf. VI....wiedergegeben. Durch Verwachsung der nach innen gekrümmten Teile der Fruchtblätter werden fünf Plazenten gebildet."

[to be continued]